



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

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Commissioner

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September 16, 2002

Mr. David Hergan
Johns Manville
P.O. Box 428
Richmond, Indiana 47375

Re: 177-15950-00006
First Minor Source Modification to:
Part 70 permit No.: T177-7720-00006

Dear Mr. Hergan:

Johns Manville was issued a Part 70 operating permit T177-7720-00006 on October 4, 2001 for a fiberglass insulation manufacturing plant. An application to modify the source was received on July 30, 2002. Pursuant to 326 IAC 2-7-10.5, the following control device is approved for construction at the source:

One (1) baghouse at the existing permitted rail car unloading station, with a design outlet grain loading of 0.02 grains per standard cubic foot (grains/sdcf) and a flow rate of 1,400 standard cubic feet per minute (scfm), and exhausting to stack S165.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.
6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.



The source may begin construction when the source modification has been issued. Operating conditions shall be incorporated into the Part 70 operating permit as a significant permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Yu-Lien Chu, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919)468-7871 to speak directly to Ms. Chu. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

ERG/YC

cc: File - Wayne County
Wayne County Health Department
Air Compliance Section Inspector - Warren Greiling
Compliance Data Section - Karen Nowak
Administrative and Development - Sara Cloe
Technical Support and Modeling - Michele Boner



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PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

**Johns Manville
814 Richmond Avenue
Richmond, Indiana 47374**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T177-7720-00006	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: October 4, 2001 Expiration Date: October 4, 2006

First Administrative Amendment 177-15463-00006, issued March 11, 2002

First Minor Source Modification No.: 177-15950-00006	Pages Affected: 1, 5, 6, 7
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: September 16, 2002

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary fiber glass insulation manufacturing plan.

Responsible Official:	Plant Manager
Source Address:	814 Richmond Ave., Richmond, Indiana 47374
Mailing Address:	P.O. Box 428, Richmond Indiana 47375-0428
General Source Phone Number:	(765) 973-5385
SIC Code:	3296
County Location:	Wayne
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD; Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) Raw Material Handling, Storage and Batching Equipment for Lines 2, 3, and 6:

- (1) One (1) rail car unloading station. The raw materials received in rail cars are bottom unloaded into a screw conveyor that transfers the material to the storage silos via a bucket elevator and a diverter. The particulate emissions are controlled by a boot lift device that seals off the bottom of the rail car, and a baghouse, which has a design outlet grain loading of 0.02 grains/sdcf and a flow rate of 1,400 scfm, and is exhausted through stack S165;
- (2) Eight (8) raw material batch silos, installed in 1967. As raw materials are loaded into the batch silos, air within the silos is displaced to the atmosphere through vents at the top of each silo. These vents are equipped with fabric filters to control particulate emissions in the airstream before it is exhausted to emission points S21 through S28; and
- (3) Four (4) day bins, installed in 1961, 1986, and 2002. The raw material from the batch silos is transferred to the day bins via an enclosed conveyor system. Particulate emissions in the airstream are controlled with fabric filters before the airstream is exhausted to emission points S31, S32, S33, and S164.

(b) Melt Facilities:

- (1) One (1) Line 2 natural gas-fired melt furnace, installed in 1961 and modified in 2000, with a maximum glass production rate of 7,200 pounds per hour. The maximum heat input capacity of the melt furnace has been included in an OAQ confidential file. The molten material flows from the furnace to the fiber forming process. The particulate emissions in the airstream are controlled by the existing electrostatic precipitator before the airstream is exhausted to Stack S5;

- (2) One (1) Line 3 natural gas-fired melt furnace, installed in 1961 and to be modified in 2001, with a maximum glass production rate of 7,200 pounds per hour. The maximum heat input capacity of the melt furnace has been included in an OAQ confidential file. The molten material flows from the furnace to the fiber forming process. The particulate emissions in the airstream are controlled by an electrostatic precipitator before the airstream is exhausted to Stack S5; and
 - (3) One (1) Line 6 electric melter, installed in 1974 and to be modified in 2001 or 2002, with a maximum glass production rate of 4,000 pounds per hour. The molten material flows from the melter to the fiber forming process. The particulate emissions from the melter are controlled by a fabric filter before the airstream is exhausted to Stack S7.
- (c) Forming Facilities:
- (1) One (1) Line 2 forming chamber for unbonded product, installed in 1961, with a maximum glass production rate of 7,200 pounds per hour. Natural gas is utilized in the combustion section of the forming chamber. The maximum heat input capacity of the combustion section has been included in an OAQ confidential file. As fibers are formed, they are carried in the airstream towards a moving collection chain where they are captured and transferred to the shredding process. A water spray is applied to the airstream to control particulate matter emissions before the airstream is exhausted to Stack S2;
 - (2) One (1) Line 3 forming chamber for unbonded product, installed in 1961 and modified in 2000, with a maximum glass production rate of 7,200 pounds per hour. Natural gas is utilized in the combustion section of the forming chamber. The maximum heat input capacity of the combustion section has been included in an OAQ confidential file. As fibers are formed, they are carried in the airstream towards a moving collection chain where they are captured. The unbonded product is transferred directly to the shredding process. A water spray is applied to the airstream to control particulate matter emissions from unbonded product before the airstream is exhausted to Stack S3.
 - (3) One (1) Line 6 forming chamber for bonded and unbonded product, installed in 1974, with a maximum glass production rate of 4,000 pounds per hour. Natural gas is utilized in the combustion section of the forming chamber. The maximum heat input capacity of the combustion section has been included in an OAQ confidential file. As fibers are formed, they are carried in the airstream towards a moving collection chain where they are captured. A binder is added to the bonded product which is transferred to a curing oven and the unbonded product is transferred directly to the shredding process. A water spray is applied to the airstream to control particulate matter emissions before the airstream is exhausted to Stack S2.
- (d) Curing and Cooling Facilities:
- (1) One (1) Line 6 natural gas-fired curing oven and cooling process for bonded product, installed in 1974, with a maximum glass production rate of 4,000 pounds per hour. The particulate emissions in the airstream are controlled by a high efficiency air filter (HEAF) before the airstream is exhausted to Stack S2.
- (e) Shredding and Packaging Facilities:
- (1) One (1) Line 2 shredding process for unbonded product, installed in 1994. The shredded fiber is pneumatically transferred to the packaging area. During the shredding process an anti-static agent and oil are applied to the product and any

particulate emissions in the airstream are controlled by two baghouses before the airstream is exhausted to Stacks S85 and S86;

- (2) One (1) Line 2 packaging area for unbonded product, installed in 1994. The airstream is separated from the unbonded shredded product via a cyclone. Fiberglass collected in the cyclones is deposited in the packaging hopper and subsequently packaged for sale. The particulate emissions in the cyclone airstream are controlled by two (2) baghouses before the airstream is exhausted to Stacks S85 and S86;
 - (3) One (1) Line 3 shredding process for unbonded product, installed in 1993. The shredded fiber is pneumatically transferred to the packaging area. During the shredding process an anti-static agent and oil are applied to the product and any particulate emissions in the airstream are controlled by two baghouses before the airstream is exhausted to Stacks S12 and S13;
 - (4) One (1) Line 3 packaging area for unbonded product, installed in 1993. The airstream is separated from the unbonded shredded product via a cyclone. Fiber glass collected in the cyclone is deposited in the packaging hopper and subsequently packaged for sale. The particulate matter emissions in the cyclone airstream are controlled by two (2) baghouses before the airstream is exhausted to Stacks S12 and S13.
 - (5) One (1) Line 6 shredding process for unbonded and bonded product, installed in 1974. The shredded fiber is then pneumatically transferred to the packaging area. During the shredding process an anti-static agent and oil are applied to the product and any particulate emissions in the airstream are controlled by a baghouse before the airstream is exhausted to Stack S11; and
 - (6) One (1) Line 6 packaging area for unbonded and bonded product, installed in 1974. The airstream is separated from the unbonded shredded product via a cyclone. Fiber glass collected in the cyclone is deposited in the packaging hopper and subsequently packaged for sale. The particulate emissions in the cyclone airstream are controlled by a baghouse before being exhausted to Stack S11. The bonded product from Line 6 may also be trimmed and packaged. This operation generates negligible particulate matter emissions that are uncontrolled.
- (f) Ancillary Equipment:
- (1) One (1) EP dust recycling system, installed in 1987, modified in 2000, and exhausted to stack S34;
 - (2) One (1) cold end housekeeping system, installed in 1988. The particulate emissions in the airstream are controlled by a baghouse before the airstream is exhausted to stack S10; and
 - (3) One (1) natural gas-fired boiler, installed in 1961, with a rated capacity of 25 MMBtu per hour. The airstream from the boiler is exhausted to stack S4.

Maximum capacities and throughputs not listed in the descriptions above have been included in an OAQ confidential file.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.
- (b) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

Raw Material Handling, Storage, and Batching Equipment

- (a) Raw Material Handling, Storage and Batching Equipment for Lines 2, 3, and 6:
- (1) One (1) rail car unloading station. The raw materials received in rail cars are bottom unloaded into a screw conveyor that transfers the material to the storage silos via a bucket elevator and a diverter. The particulate emissions are controlled by a boot lift device that seals off the bottom of the rail car, and a baghouse, which has a design outlet grain loading of 0.02 grains/sdcf and a flow rate of 1,400 scfm, and is exhausted through stack S165;
 - (2) Eight (8) raw material batch silos, installed in 1967. As raw materials are loaded into the batch silos, air within the silos is displaced to the atmosphere through vents at the top of each silo. These vents are equipped with fabric filters to control particulate emissions in the airstream before it is exhausted to emission points S21 through S28; and
 - (3) Four (4) day bins, installed in 1961, 1986, and 2002. The raw material from the batch silos is transferred to the day bins via an enclosed conveyor system. Particulate emissions in the airstream are controlled with fabric filters before the airstream is exhausted to emission points S31, S32, S33, and S164.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6-1-2(a)]

Pursuant to 326 IAC 6-1-2(a) (Particulate Emission Limitations for General Sources), the allowable PM emission rate from the following listed equipment:

Railcar unloading station
S21 raw material storage silo
S22 raw material storage silo
S23 raw material storage silo
S24 raw material storage silo
S25 raw material storage silo
S26 raw material storage silo
S27 raw material storage silo
S28 raw material storage silo
S31 raw material day bin 2N
S32 raw material day bin 3W
S33 raw material day bin 3E
S164 raw material day bin

Shall each not exceed 0.03 grain per dry standard cubic foot (dscf).

D.1.2 Particulate Matter Limitations [326 IAC 2-2-3(a)(3)]

Pursuant to CP-177-5873-00006, issued April 22, 1999, and 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration (PSD) Rules), the raw material handling, storage and batching facilities stated above shall comply with the following limitations:

- (a) The unloading station shall be equipped with a bootlift device and shall not exceed an average of three percent (3%) opacity in any 24 consecutive readings recorded in 15 second intervals in accordance with the applicable requirements of 40 CFR 60, Appendix A, Method 9;
- (b) The raw material conveyor system shall be enclosed and shall not exceed an average of three percent (3%) opacity in any 24 consecutive readings recorded in 15 second intervals in accordance with the applicable requirements of 40 CFR 60, Appendix A, Method 9; and
- (c) The raw material batch silos and day bins shall be equipped with fabric filters and shall not exceed an average of three percent (3%) opacity in any 24 consecutive readings recorded in 15 second intervals in accordance with the applicable requirements of 40 CFR 60, Appendix A, Method 9.

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.1.4 Particulate Matter

In order to comply with Conditions D.1.1 (for the rail car unloading station) and D.1.2(a), the baghouse used to control PM emissions and opacity from the rail car unloading station shall be in operation at all times when the rail car unloading station is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.5 Visible Emissions Notations

- (a) Visible emission notations of the railcar unloading station, raw material batch silos, and day bins stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

D.1.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across baghouse used in conjunction with the rail car unloading station, at least once per shift when the unloading station is in operation. When for any one reading, the pressure drop across baghouse equipped with the rail car unloading station is outside the normal range of 2.0 and 4.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation,

Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.7 Baghouse Inspections

An inspection shall be performed within the last month of each calendar quarter of the baghouse controlling the exhausts from the rail car unloading station.

D.1.8 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.9 Record Keeping Requirements

- (a) To document compliance with Condition D.1.2 and D.1.3, the Permittee shall maintain records of visible emission notations of the mentioned stack exhaust once per shift.
- (b) To document compliance with Condition D.1.6, the Permittee shall maintain once per shift records of the inlet and outlet differential static pressure during normal operation for the baghouse equipped with rail car unloading station.
- (c) To document compliance with Condition D.1.7, the Permittee shall maintain records of the results of the inspections required under Condition D.1.7.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Part 70 Minor Source Modification and a Part 70 Significant Permit Modification

Source Background and Description

Source Name:	Johns Manville
Source Location:	814 Richmond Avenue, Richmond, Indiana 47374
County:	Wayne
SIC Code:	3296
Operation Permit No.:	T177-7720-00006
Operation Permit Issuance Date:	October 4, 2001
Minor Source Modification:	177-15950-00006
Significant Permit Modification:	177-16463-00006
Permit Reviewer:	ERG/YC

The Office of Air Quality (OAQ) has reviewed a modification application from Johns Manville relating to the construction of the pollution control device:

One (1) baghouse at the existing permitted rail car unloading station, with a design outlet grain loading of 0.02 grains per standard cubic foot (grains/sdcf) and a flow rate of 1,400 standard cubic feet per minute (scfm), and exhausting to stack S165.

History

On July 30, 2002, Johns Manville submitted an application to the OAQ requesting to install a baghouse with a 99% control efficiency at the existing permitted rail car unloading station. The Permittee has noticed that this unloading station can not meet the 3% opacity limit, which might also indicate exceedances of the 0.03 grain/dscf limit, which was permitted in the source's Part 70 permit (#177-7720-00006, issued on October 4, 2001).

Currently, the rail car station is controlled by a boot lift and has a PM emission limit of 0.03 grain/dscf and an opacity limit of 3%. There are no stack testing requirements for this rail car unloading station in their current Part 70 permit, and no stack test has been conducted for this unloading station.

The Permittee stated that the installation of the new baghouse will control both opacity and particulate emissions from the unloading station effectively. There will be no collateral emissions from this proposed baghouse. However, the compliance monitoring and record keeping requirements are necessary for the proposed baghouse in order to comply with the opacity limit for the rail car unloading station.

Enforcement Issue

There are no enforcement actions pending of this rail car unloading station. However, the source stated that the opacity of the exhaust from the existing unloading station exceeded 3%, and this might also indicate that the PM emissions from this unloading station is greater than 0.03 grain/dscf.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
S165	Baghouse	2.42	1.17	1,400	77

Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on July 30, 2002. Additional information was received on August 15, 2002, and August 29, 2002.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (page 1).

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)*
PM	105.1
PM-10	105.1
SO ₂	--
VOC	--
CO	--
NO _x	--

* This is the potential to emit of the rail car unloading station before the baghouse control.

Justification for Modification

This modification is being performed through a Part 70 Minor Source Modification pursuant to 326 IAC 2-7-10.5(d)(3) as: (1) the modification is a pollution control project as defined in 326 IAC 2-1.1-1(13); (2) has no emission increase; and (3) requires significant changes in the

methods to demonstrate or monitor compliance. The permit modification is being performed through a Significant Permit Modification pursuant to 326 IAC 2-7-12(d) because this is a modification involving significant changes to existing monitoring and record keeping requirements in the Part 70 permit.

County Attainment Status

The source is located in Wayne County.

Pollutant	Status
PM-10	Attainment
SO ₂	Maintenance Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Wayne County has been designated as attainment for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Wayne County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (d) Fugitive Emissions
 Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	greater than 250
PM-10	greater than 250
SO ₂	greater than 100
VOC	greater than 100 and less than 250
CO	greater than 250
NO _x	greater than 250

- (a) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the 28 listed source categories.
- (b) These emissions are based upon the Technical Support Document (TSD) for the source's Title V permit #177-7720-00006, issued October 4, 2001.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Unloading Station with the Proposed Baghouse*	1.05	1.05	--	--	--	--	--
Total Emissions of the Modification	1.05	1.05	--	--	--	--	--
PSD Thresholds	25	15	40	40	100	40	NA

* The existing rail car unloading station will be controlled by the existing boot lift and the proposed baghouse. No information is available about the potential to emit from the rail car unloading station without control or after the boot lift control.

This modification to an existing major stationary source is not major because the emission increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

- (a) The source is a fiberglass insulation manufacturing plant and is subject to the requirements of the New Source Performance Standard, 326 IAC 12, (CFR 60.690 - 60.699, Subpart PPP) for Wool Fiberglass Insulation Manufacturing Plants. Pursuant to 40 CFR 60, Subpart PPP, the particulate emissions from each of the manufacturing line shall not exceed 11.0 pounds per ton of glass pulled. However, the BACT analysis conducted in CP #117-5873-00006, issued on April 22, 1999, has been determined to be the most stringent requirements for Johns Manville in source's Title V permit #177-7720-00006, issued October 4, 2001.

Pursuant to CP #117-5873-00006, issued on April 22, 1999, and 326 IAC 2-2-3 (BACT Analysis), the particulate emissions from the rail car unloading station shall not exceed 3% opacity. This unloading station also has a PM limit of 0.03 grain/dscf, pursuant to 326 IAC 6-1-2 (Nonattainment Area Limitations).
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.
- (c) This source is a fiberglass manufacturing plant. However, the HAPs emissions from the entire source are limited to less than 10 tons per year for a single HAP and less than 25 tons per year for any combination of HAPs in source's current Title V permit (#177-7720-00006, issued October 4, 2001). Therefore, this source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Wood Fiberglass Manufacturing (40 CFR 63, Subpart NNN).

State Rule Applicability - Railcar Unloading Station

326 IAC 2-2-3 (BACT)

Pursuant to CP #117-5873-00006, issued on April 22, 1999, which was carried over to the Title V permit (#177-7720-00006, issued October 4, 2001) and 326 IAC 2-2-3 (BACT Analysis), the particulate emissions from the rail car unloading station shall not exceed 3% opacity, which

is the only PSD requirement for this unloading station. This unloading station is currently equipped with a boot lift as control. The proposed baghouse ensures compliance with this limit.

326 IAC 6-1-2 (Nonattainment Area Limitations)

This source is located in Wayne County, and the rail car unloading station is not subject to 326 IAC 6-1-14. Therefore, this unloading station is subject to 326 IAC 6-1-2(a). Pursuant to 326 IAC 6-1-2(a), the particulate matter emissions from this unloading station shall not exceed 0.03 grain per dry standard cubic foot (dscf).

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this modification are as follows:

1. The proposed baghouse, which will be equipped with the rail car unloading station, has applicable compliance monitoring conditions as specified below:
 - (a) Visible emissions notations of the baghouse stack exhaust from stack #165 shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.
 - (b) The Permittee shall record the total static pressure drop across the baghouse equipped with the rail car unloading station at least once per shift when the unloading station is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 to 4.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

- (c) An inspection shall be performed each calendar quarter of all bags controlling the rail car unloading station. A baghouse inspection shall be performed within the last month of each calendar quarter. In the event that bag failure has been observed:
 - (1) for multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit.
 - (2) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit.

These monitoring conditions are necessary because the baghouse used to control particulate emissions from the rail car unloading station must operate properly to ensure compliance with 326 IAC 2-2-3 (BACT).

Proposed Changes

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]
[326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

- (a) Raw Material Handling, Storage and Batching Equipment for Lines 2, 3, and 6:
 - (1) One (1) rail car unloading station. The raw materials received in rail cars are bottom unloaded into a screw conveyor that transfers the material to the storage silos via a bucket elevator and a diverter. The particulate emissions are controlled by a boot lift device that seals off the bottom of the rail car, **and a baghouse, which has a design outlet grain loading of 0.02 grains/sdcf and a flow rate of 1,400 scfm, and is exhausted through stack S165;**

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

Raw Material Handling, Storage, and Batching Equipment

- (a) Raw Material Handling, Storage and Batching Equipment for Lines 2, 3, and 6:
- (1) One (1) rail car unloading station. The raw materials received in rail cars are bottom unloaded into a screw conveyor that transfers the material to the storage silos via a bucket elevator and a diverter. The particulate emissions are controlled by a boot lift device that seals off the bottom of the rail car, **and a baghouse, which has a design outlet grain loading of 0.02 grains/sdcf and a flow rate of 1,400 scfm, and is exhausted through stack S165;**
 - (2) Eight (8) raw material batch silos, installed in 1967. As raw materials are loaded into the batch silos, air within the silos is displaced to the atmosphere through vents at the top of each silo. These vents are equipped with fabric filters to control particulate emissions in the airstream before it is exhausted to emission points S21 through S28; and
 - (3) Four (4) day bins, installed in 1961, 1986, and 2002. The raw material from the batch silos is transferred to the day bins via an enclosed conveyor system. Particulate emissions in the airstream are controlled with fabric filters before the airstream is exhausted to emission points S31, S32, S33, and S164.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.1.2 Particulate Matter Limitations [326 IAC 2-2-3(a)(3)]

Pursuant to CP-177-5873-00006, issued April 22, 1999, and 326 IAC 2-2-3(a)(3) (Prevention of Significant Deterioration (PSD) Rules), the raw material handling, storage and batching facilities stated above shall comply with the following limitations:

- (a) The unloading station shall be equipped with a bootlift device and shall not exceed an average of three percent (3%) opacity in any 24 consecutive readings recorded in 15 second intervals in accordance with the applicable requirements of 40 CFR 60, Appendix A, Method 9;
- (b) The raw material conveyor system shall be enclosed and shall not exceed an average of three percent (3%) opacity in any 24 consecutive readings recorded in 15 second intervals in accordance with the applicable requirements of 40 CFR 60, Appendix A, Method 9; and
- (c) The raw material batch silos and day bins shall be equipped with fabric filters and shall not exceed an average of three percent (3%) opacity in any 24 consecutive readings recorded in 15 second intervals in accordance with the applicable requirements of 40 CFR 60, Appendix A, Method 9.

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.1.4 Particulate Matter

In order to comply with Conditions D.1.1 (for the rail car unloading station) and D.1.2(a), the baghouse used to control PM emissions and opacity from the rail car unloading station shall be in operation at all times when the rail car unloading station is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.35 Visible Emissions Notations

- (a) Visible emission notations of the railcar unloading station, raw material batch silos, and day bins stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

D.1.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across baghouse used in conjunction with the rail car unloading station, at least once per shift when the unloading station is in operation. When for any one reading, the pressure drop across baghouse equipped with the rail car unloading station is outside the normal range of 2.0 and 4.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.7 Baghouse Inspections

An inspection shall be performed within the last month of each calendar quarter of the baghouse controlling the exhausts from the rail car unloading station.

D.1.8 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) **For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may**

continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).**

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.49 Record Keeping Requirements

- (a) To document compliance with Condition D.1.2 and D.1.3, the Permittee shall maintain records of visible emission notations of the mentioned stack exhaust once per shift.**
- (b) To document compliance with Condition D.1.6, the Permittee shall maintain once per shift records of the inlet and outlet differential static pressure during normal operation for the baghouse equipped with rail car unloading station.**
- (c) To document compliance with Condition D.1.7, the Permittee shall maintain records of the results of the inspections required under Condition D.1.7.**
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.**

The source indicated that the official name of the company is "Johns Manville", and the responsible official and the general phone number have been changed. Therefore, IDEM, OAQ has made the following changes.

PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

**Johns Manville International, Inc.
814 Richmond Avenue
Richmond, Indiana 47374**

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary fiber glass insulation manufacturing plan.

Responsible Official:
Source Address:

~~Emerson Bungard~~, Plant Manager
814 Richmond Ave., Richmond, Indiana 47374

Mailing Address:	P.O. Box 428, Richmond , Indiana 47375-0428
General Source Phone Number:	(765)- 973-5204 973-5385
SIC Code:	3296
County Location:	Wayne
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD; Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 177-15950-00006, and the operation of this modification shall be subject to the conditions of the proposed Part 70 Significant Permit Modification No. 177-16463-00006.

Appendix A: Emission Calculations
PM/PM10 Emissions
From the Rail Car Unloading Station

Company Name: Johns Manville
Address City IN Zip: 814 Richmond Ave., Richmond, IN 47374
MSM: 177-15950-00006
Reviewer: ERG/YC
Date: August 15, 2002

Woodworking Process Description:

Max. Throughput Rate: 52,000 lbs/hr
PM Control Equipment: baghouse
Grain Loading: 0.02 grains/sdcf
Air Flow Rate: 1,400 scf/m
Control Efficiency: 99.0%

1. Potential to Emit After Control:

Hourly PM/PM10 Emissions	$= 0.02 \text{ (gr/sdcf)} \times 1400 \text{ (scf/min)} \times 60 \text{ (min/hr)} \times 1/7000 \text{ (lb/gr)} =$	0.24 lbs/hr
Annual PM/PM10 emissions	$= 0.24 \text{ lbs/hr} \times 8760 \text{ hr/yr} \times 1/2000 \text{ (ton/lb)} =$	1.05 tons/yr

2. Potential to Emit Before Control:

Potential PM/PM10 emissions	$= 1.05 \text{ tons/yr} / (1-99.0\%) =$	105.1 tons/yr
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